

University of Groningen

Towards the application of alginate cell microencapsulation technologies to treat brain tumors

Bhujbal, Swapnil

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Publisher's PDF, also known as Version of record

Publication date:

2015

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Bhujbal, S. (2015). *Towards the application of alginate cell microencapsulation technologies to treat brain tumors*. [Thesis fully internal (DIV), University of Groningen]. [S.n.].

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Stellingen
behorende tot het proefschrift

verdedigd door Swapnil Vilas Bhujbal op---

1. The international scientific community is so much focused on success of encapsulation systems in humans that they have forgotten to study the requirements for success.
2. Variations in encapsulation procedures have a large and underestimated impact on mechanical stability and biocompatibility of capsules, and are an essential factor in the success or failure of encapsulated cellular grafts.
3. The exact mechanical stability required for application of encapsulation systems in humans is still unknown (this thesis).
4. Mechanical stability of alginate gel networks influences the porosity and the surface roughness of the capsules, as well as the viability of encapsulated cells (this thesis).
5. Multilayer cell encapsulation overcomes issues with conventional encapsulation systems such as low mechanical stability and protrusion of cells and has therefore advantages for clinical application (this thesis).
6. Bringing cellular based therapy closer to the tumor will only be successful when we produce vehicles that can withstand the pressure of the brain.
7. Cell encapsulation technology is not only science but also a great art in science.
8. The PhD training does teach more about life than about research.
9. Success is when you convert your dreams into reality.
10. Being direct is not being rude.

Swapnil Vilas Bhujbal
11th February 2015